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10/587,249	07/26/2006	Tomoharu Nishioka	SPL-06-1211	9642
35811	7590	12/23/2008	EXAMINER	
IP GROUP OF DLA PIPER US LLP ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				KASHNIKOW, ERIK
ART UNIT		PAPER NUMBER		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/587,249 ERIK KASHNIKOW	NISHIOKA ET AL. Art Unit 1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09/12/08.  
 2a) This action is **FINAL**.                  2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 12,13,17,19-23 and 27-35 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 12,13,17,19-23 and 27-35 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/04/08</u> .  | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 32 and 34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically there is no support in the specification for that the functional group is a carbonyl group, Examiner suspects Applicant's meant carboxyl group.

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 12-14, 16-17 and 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 5 and 10 of U.S. Patent No. 6,656,553. Although the conflicting claims are not identical, they are not patentably distinct from each other because while claim 10 teaches a three layer structure comprising a polyamide/adhesive polyamide/ adhesive ETFE, it is silent regarding the functional groups on ETFE. The limitation of the functional groups on ETFE are taught in claim 2.

Applicant's attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to where the specification shows that adhesive PA contains the same materials as claimed in the instant application (column 5 lines 55 to column 6 line 65). Also while claim 5 discloses an extra polyamide layer as an outer layer it is silent regarding the polyamide being polyamide 11 or 12, but the specification discloses these as the

polyamides for the outermost layer (Example 2) and therefore, it would have been obvious to one of ordinary skill in the art to use polyamide 12 in outermost layer of US 6,656,533.

Claims 12-13, 17 and 21 are directed to an invention not patentably distinct from claims 5, and 10 of commonly assigned Patent US 6,656,553. Specifically, see paragraph above for explanation of the rejection.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned 6,656,533, discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 12, 13, 17, 19-23 and 27-35 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 12 and 22 include the new limitation “no added free diamine”. The cited phraseology clearly signifies a “negative” or “exclusionary” limitation for which the applicants have no support in the original disclosure. Negative limitations in a claim which do not appear in the specification as filed introduce new concepts and violate the description requirement of 35 USC 112, first paragraph, *Ex Parte Grasselli, Suresh, and Miller*, 231 USPQ 393, 394 (Bd. Pat. App. and Inter. 1983); 783 F. 2d 453.

The insertion of the above phraseology as described above positively excludes additional free diamines , however, there is no support in the present specification for such exclusions. While the present specification is silent with respect to the use of additional free diamines, is noted that as stated in MPEP 2173.05(i), the “mere absence of a positive recitation is not the basis for an exclusion.”

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-13, 17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishi et al. (US 6,656,533).
5. In regards to claims 12-13 and 21 Nishi et al. teach a 3 layer tube with the inner most layer being a fluorine containing polymer with functional group which has reactivity with polyamide based Resins (claims 1 and 2 and column 5 lines 55 to column 6 line 65) and teaches an additional outer layer for the tube (claim 5) and gives polyamide 12 as an example of the polyamide for the outer layer (example 2).
6. In regards to claim 17 Nishi et al. teach in claim 1 that the fluorine layer is an ethylene/tetrafluoroethylene copolymer.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12-13, 17, 20-23, 27-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626) and Oka et al. (US 5,670,608).

9. Stoeppelmann teaches new polyamide based adhesion promoter that works well with fluoropolymers (column 1 line11-13).

In regards to claims 12, 13, 23, and 24 Stoeppelmann teaches a three layer system comprising a fluoropolymer inner layer, an intermediate adhesion promoting layer, which comprises a polyamide having amino and carboxyl groups, and a polyamide outer layer (claim 1). Stoeppelmann teaches that the outer layer includes polyamide 12 (column 5 lines 58-59). Stoeppelmann teaches that the polyamine intermediate layer can be PA6T, where T is a terephthalic acid compound (column 3, lines 42-43), as well as the addition of dodecyl or decyl diamines (column 2 lines 67-68). While Stoeppelmann is silent regarding the mol% of the terephthalic acid and the additive amines, it has been shown that absent a showing of criticality with respect to "the concentrations" (a result effective variable), it would have been obvious to a person of ordinary skill in the art at the time of the invention to adjust the "concentrations" through routine experimentation in order to achieve "polyamide based adhesion promoter". It has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Stoeppelmann further teaches that the innermost layer be a fluoropolymer (claim 1). Examiner also points out that while Stoeppelmann teaches an added diamine it is not required (column 4 lines 19-27). Further, Examiner points out that nonpreferred

disclosures can be used. A nonpreferred portion of a reference disclosure is just as significant as the preferred portion in assessing the patentability of claims.” In re Nehrenberg, 280 F.2d 161, 126 USPQ 383 (CCPA 1960).

10. In regards to claims 15 and 22 the intermediate layer taught by Stoeppelmann would also meet all the limitations of Applicant's layer (d). It teaches terminal amino groups present in ratios which can fit the concentration limitations of applicant's claims (column 3 lines 55-68). As such examiner points to MPEP 2144.04 section VI which states that duplication of parts has no patentable significance unless new and unexpected results are produced. As both layers are used to increase adhesion to the fluoropolymer layer no unexpected results would be produced. It is also pointed out that one would be motivated to double the layers to increase the overall adhesive strength between all the layers.

11. In regards to claims 17 and 27 Stoeppelmann teaches that the fluoropolymer layer can be a combination of hexafluoropropylene, tetrafluoroethylene and vinylidene fluoride (Claim 2).

12. In regards to claims and 28 Examiner treats these claims as product by process claims (MPEP 2113) and therefore patentability is defined by the product itself and not by the process, as such the terminal modified polyamine is the product and has been previously rejected. In this case the Applicant's and the reference teach a polyamide that has been modified by a diamine, in this instance, a product by process claim, the process of making the product, whether it be adding the diamine during the

polymerization or after polymerization leads to the same product, and the claims are therefore rejected.

13. In regards to claims 20 and 30 Stoeppelmann teaches that the tube can be co extruded (column 5 lines 25-26).

14. In regards to claims 21 and 31 Stoeppelmann teaches that these tubes are to be used as fuel lines (column 2 lines 49-50).

15. While Stoeppelmann teaches the three layer fuel line as stated above he is silent regarding the functional groups added to the fluoropolymer.

16. Shimizu et al. teach a thermoplastic resin containing fluorine which has improved mechanical and chemical abilities (column 1 lines 4-9)

17. In regards to claim 12 Shimizu et al. teach that the functional group for the fluorine containing compound can be an epoxy group (column 7 lines 26-27), which applicants list in their specification as one of the preferred functional groups to be added to the fluorine containing polymer. Shimizu et al. teach that this functional group is added to increase and improve interface affinity between the fluorine containing polymers and various thermoplastics (column 11 lines 25-45). Shimizu et al. teach that this fluorine containing polymer can be used in automobile fuel applications (column 11 lines 1-5).

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the tube of Stoeppelmann with the fluorine containing polymer of Shimizu et al. because the tube of Stoeppelmann which has resistance to fuels and an adequately low permeation (column 2 lines 45-49) would benefit from the improved

mechanical and chemical properties of the polymer of Shimizu et al. (column 1 lines 4-9).

19. As stated above Stoeppelmann and Shimizu et al. teach a fuel hose which comprises three layers including an intermediate layer which contains a polyamide which is modified with terephthalic acid and a long chain alkyl amides. However they are silent regarding that amide being 1,9-nonenediamine.

20. In regards to claims 12 and 22 Oka et al. teaches a polyamide composition which has superior moldability, heat resistance and mechanical characteristics (column 1 lines 6-11).

21. Oka et al. teach that the polyamide composition comprises a polyamide, terephthalic acid and 1,9-nonenediamine (column 2 lines 45-50).

22. One of ordinary skill in the art at the time of the invention would be motivated to modify the tube of Stoeppelmann and Shimizu et al. with the polymer of Oka et al. because the polymer of Oka et al. would offer superior moldability, heat resistance and mechanical characteristics (column 1 lines 6-11) to the tubes of Stoeppelmann and Shimizu et al.

23. Claims 19 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626) Oka et al. (US 5,670,608) and Krause et al. (US 5,554,425).

24. While Stoeppelmann Oka et al. and Shimizu et al. do state that at least one of the layers is electrically conductive (claim 4) they are silent regarding the fluoropolymer layer being electrically conductive.

25. Krause teaches fluoropolymer tubes used as fuel lines (column 1 lines 10-12).
26. Krause teaches that conductive particles are added to the fluoropolymer resin for the fuel tube (column 3 lines 55-60).
27. One of ordinary skill in the art at the time of the invention would be motivated to modify the tubes of Stoeppelmann and Shimizu et al. with the fluoropolymer of Krause et al. because the fluoropolymer of Krause et al. would add the ability to carry away electrical discharges that may form by the flow of liquids through the tube (column 1 lines 11-21 and column 3 lines 55-60) to the fuel tubes of Stoeppelmann and Shimizu et al.
28. Claims 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoeppelmann (US 5,869,157) in view of Shimizu et al. (US 5,750,626) Oka et al. (US 5,670,608) and Nishi et al.
29. As stated above Stoeppelmann and Shimizu et al. teach a fuel hose which comprises three layers including an intermediate layer which contains a polyamide which is modified with terephthalic acid and a long chain alkyl amides, and a fluorine containing polymer modified with a functional group with affinity for polyamides. However they are silent regarding that functional group being an acid anhydride.
30. Nishi et al. teach fluoropolymers with carboxylic anhydride groups therein which is useful for bonding to various organic and inorganic materials (claim 2), including polyamides (paragraph 0058).

31. One of ordinary skill in the art at the time of the invention would be motivated to modify the invention of Nishi et al. with that of Stoepelmann Shimizu and Oka et al. because the invention of Nishi et al. offers firm adherence to a wide variety of substrates (paragraph 0001).

### ***Response to Arguments***

32. Applicant's arguments, see arguments, filed 09/12/08, with respect to 35 U.S.C. 112 2<sup>nd</sup> paragraph rejections have been fully considered and are persuasive. The 112 2<sup>nd</sup> paragraph rejection of the claims has been withdrawn.

In regards to Applicant's arguments regarding the double patenting, Examiner agrees that claim 2 of the patent does not require three layers, and therefore that claim has been removed from the double patenting rejection. Examiner has also removed the canceled claims from the double patenting rejection. However Examiner points out that claims 5 and 10, both which teach a three layer article with 2 polyamide layers and a fluorine containing polymer layer still read on the claims. Examiner points out that the PA9T, while not mentioned specifically in the claims, is a polymer formed by Nishi '553. Applicant's attention is drawn to MPEP 804 where it is disclosed that "the specification can always be used as a dictionary to learn the meaning of a term in a patent claim." *In re Boylan*, 392 F.2d 1017, 157 USPQ 370 (CCPA 1968). Further, those portions of the specification which provide support for the patent claims may also be examined and considered when addressing the issue of whether a claim in an application defines an

obvious variation of an invention claimed in the patent. (underlining added by examiner for emphasis) *In re Vogel*, 422 F.2d 438,164 USPQ 619,622 (CCPA 1970).

Consistent with the above underlined portion of the MPEP citation, attention is drawn to where the specification shows that adhesive PA contains the same materials as claimed in the instant application (column 5 lines 55 to column 6 line 65). Examiner points out that this also goes for the 35 U.S.C. 102 rejections and Applicant's arguments regarding that rejection.

33. In regards to Applicant's arguments concerning the 103 rejection, Examiner first points out that the new limitation of "no added free diamine" is a negative limitation. Examiner points out that as stated above Stoepelmann teach that the diamine may be added but is not required (column 4 lines 19-27).

34. In regards to Applicant's arguments concerning the lack of 1,9-nonenediamine and a functional group capable of developing an affinity with amide resins on the fluorine containing polymer, this is why the Shimizu and Oka references have been added. Examiner notes that while Shimizu and Oka et al. do not disclose all the features of the present claimed invention, they are used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the

features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

35. In regards to Applicant's arguments that Stoeppelmann does not teach PA9T, Examiner points out that PA9T is not required by the claims. Examiner asserts that all limitations of the claims have been met through the combination of Stoeppelmann, Shimizu and Oka et al.

36. In regards to Applicant's arguments that one of ordinary skill in the art at the time of the invention would not be motivated to modify the invention of Stoeppelmann with that of Shimizu or Oka, examiner points to the motivational statements previously provided for motivation. Examiner also points out that motivation to combine may be different than Applicant's motivation (MPEP 2144 Section IV). Examiner also points out that "obviousness under 103 is not negated because the motivation to arrive at the claimed invention as disclosed by the prior art does not agree with appellant's motivation", *In re Dillon*, 16 USPQ2d 1897 (Fed. Cir. 1990), *In re Tomlinson*, 150 USPQ 623 (CCPA 1966).

37. In regards to Applicant's arguments regarding the Krause reference Examiner notes that while Krause et al. do not disclose all the features of the present claimed invention, they are used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, and in combination with the primary reference, discloses the presently claimed invention. If

the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

***Conclusion***

38. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIK KASHNIKOW whose telephone number is (571)270-3475. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erik Kashnikow  
Examiner  
Art Unit 1794

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794